## SERVOTOUGH Hazardous Area

### PRODUCT DETAILS

<table>
<thead>
<tr>
<th>Product</th>
<th>Features</th>
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<tbody>
<tr>
<td><strong>Oxy 1900</strong>&lt;br&gt;AWARD-WINNING DIGITAL O₂ ANALYZER</td>
<td>Tunable band-pass filter enables simultaneous scanning of selected wavelength bands for gases including Methane, Ethane, Propane and, iso-Butane. Unique tunable filter process with FL photometer technology delivers industry-leading interference compensation. Chemometric algorithm provides a permanent span calibration, low cross-interference (&lt;0.2%), linear response and high baseline stability.</td>
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<tr>
<td><strong>OxyExact 2200</strong>&lt;br&gt;HIGH SPECIFICATION PROCESS O₂ ANALYZER</td>
<td>The SERVOTOUGH OxyExact high specification oxygen analyzer offers an unrivaled combination of precision, flexibility and performance for optimum process and safety control. The OxyExact can be configured with a safe or hazardous area control unit with up to six transmitters.</td>
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<tr>
<td><strong>SpectraScan 2400</strong>&lt;br&gt;REALTIME LIGHT HYDROCARBON GAS ANALYZER</td>
<td>A real-time optical analyzer utilizing the Precise field proven optical bench, the SERVOTOUGH SpectraScan delivers a breakthrough capability in the continuous analysis of light hydrocarbons C1-C5+. Tunable band-pass filter enables simultaneous scanning of selected wavelength bands for gases including Methane, Ethane, Propane and, iso-Butane. Unique tunable filter process with FL photometer technology delivers industry-leading interference compensation. Chemometric algorithm provides a permanent span calibration, low cross-interference (&lt;0.2%), linear response and high baseline stability.</td>
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<td><strong>SpectraExact 2500</strong>&lt;br&gt;RUGGED PHOTOMETRIC GAS ANALYZER FOR DEMANDING PROCESS APPLICATIONS</td>
<td>Servomex's iconic industry-leading photometric analyzer delivers flexible single and multi-component gas analysis capability for corrosive, toxic and flammable sample streams. The SpectraExact's reliable, accurate and stable real-time online process analysis makes it ideal for a range of process and emissions gas analysis applications. Hazardous area certified. Easy integration with DCs – from 4-20mA to Modbus TCP. Same PLC cell and electronics segregated – for easy maintenance and safe operation.</td>
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<tr>
<td><strong>FluegasExact 2700</strong>&lt;br&gt;THE WORLD’S MOST ADVANCED FLUEGAS ANALYZER</td>
<td>Designed to measure O₂ and combustibles in flue gases for improved combustion efficiency and reduced emissions, the FluegasExact gas analyzer is designed to suit the most demanding needs of combustion efficiency applications in the Power Generation and Process industries. Continuous measurement of oxygen and/or combustibles. Unique flowcube flow sensor technology enables positive flow rate compensation. Sulphur resistant combustibles sensor enables sensor to operate at elevated sulphur levels.</td>
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<td><strong>LaserSP 2900</strong>&lt;br&gt;REALTIME LIGHT HYDROCARBON GAS ANALYZER</td>
<td>A high performance gas analyzer designed for continuous in-situ monitoring, the LaserSP delivers a fast response time and highly stable performance. Suitable for measuring a range of gases including O₂, HCl, HF, NH₃, CO, CO₂, H₂O, H₂S, HCN, CH₄, and other hydrocarbons, the LaserSP is ideal for a wide range of process, combustion control and emissions applications. Fast response ideal for control. In-situ with no sample conditioning delivers reliable operation. Wavelength Modulated Spectroscopy provides wide dynamic range and lowest cross interference.</td>
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<tr>
<td><strong>LaserCompact 2900</strong>&lt;br&gt;REALTIME LIGHT HYDROCARBON GAS ANALYZER</td>
<td>Optimized for measurement across pipes and along short measurement cells and able to measure through very thin nozzles, reducing or even eliminating consumption of purge gas, the LaserCompact delivers the fast response time, highly stable performance and minimum sample conditioning advantages of TDL technology. Simplify safety with comprehensive hazardous area approval including flammable sample requirements. Line width correction delivers accurate measurement with variations in matrix. In-situ with low purge gas consumption.</td>
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<tr>
<td><strong>LaserExact 2900</strong>&lt;br&gt;EXTRACTIVE TDL TRACE ANALYZER</td>
<td>Specifically designed for extractive trace analysis applications, the LaserExact's TDL technology offers unsurpassed low ppb detection limits for most gases, making it ideal for the measurement of trace gases offline. Advanced multipass cell delivers high ppm detection limits. Innovative Peak Lock pattern recognition eliminates drift over extended operational periods. Stable, high performance reduces calibration to typically once a year.</td>
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<tr>
<td><strong>MiniLaser Oxy</strong>&lt;br&gt;WORLD’S SMALLEST TDL CROSS STACK O₂ ANALYZER</td>
<td>All the benefits of Servomex's TDL technology in a smaller and lighter unit, offering unparalleled installation flexibility plus cost and performance benefits. Optimized for the fastest, accurate and responsive measurement of process oxygen in hot or hazardous conditions. Quick and easy installation by one person with on-board display negating the need for laptop configuration and diagnostics. The only compact analyzer specifically optimized for O₂ measurement, therefore suitable for a range of combustion and process control applications. Servomex’s new purge design reduces nitrogen (N₂) and air purge costs by 90% pa.</td>
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<tr>
<td><strong>MiniLaser Ammonia</strong>&lt;br&gt;WORLD’S SMALLEST TDL CROSS STACK NH₃ ANALYZER</td>
<td>The only delta analyzer specifically optimized for the fast, accurate and reliable measurement of Ammonia. Servomex’s new purge design reduces nitrogen (N₂) and air purge costs by 90% pa. Ideal for Sip Ammonia application on power plants.</td>
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MultiExact 5400

**DIGITAL MULTIGAS ANALYZER OPTIMIZED FOR ASU REQUIREMENTS**

Combining industry-leading performance and a range of new and enhanced functions as standard, the MultiExact offers air separation plants a multi-gas analyzer specifically optimized to industry requirements. With new GXF andParamagnetic measurements now augmented by Servomex’s revolutionary TCD measurement sensing technology.

**Key Features**
- TruRef technology offers class leading measurements for Ar, He and H2.
- mA auto ranging functionality, user-definable air point calibration auto validation and auto calibration functions included as standard.
- Options include digital communication options, an internal valve block function and unique Servomex Fiducial flow sensor technology.

MonoExact

**DIGITAL SINGLE GAS ANALYZER WITH NEW TCD MEASUREMENTS**

The new SERVOPRO MonoExact gas analyzer brings Servomex’s acclaimed TruRef Thermal Conductivity (TCD) technology to ASU operators in a compact, single component analyzer, offering class-leading measurements for Ar, He, N2 and H2.

**Key Features**
- TruRef offers ASU operators truly industry-leading measurements for Ar, He, N2 and H2.
- Simultaneous measurement of up to four gas streams.
- Independent auto calibration of all measurements with up to 8 isolated analogue outputs and up to 12 relays with follow or freeze option.
- Alarm, fault and calibration history logs.

4100

**FLEXIBLE MULTIGAS ANALYZER**

Offering the capability of measuring CO, CO2, N2O, CH4 and moisture at trace levels and CO, CO2 and CH4 at percent levels - as well as an O2 purity measurement - the flexibility of the SERVOPRO 4100 meets a wide range of process control and product qualification needs.

**Key Features**
- Measures up to four gases simultaneously.
- RS232 / RS485 and Modbus communications.
- 4210 variant includes stainless steel pipework.

4200/4210

**GAS ANALYZER SUITABLE FOR FLAMMABLE GAS MIXTURES**

The SERVOPRO 4210 multi-gas analyzer is designed to monitor flammable gas samples, including H2, CO, ‘HYCOR’ or ‘5ygas’ mixtures for trace level contaminants and percent level components. The 4210 offers oxygen control using Servomex’s unique paramagnetic cell, trace level measurement of CO, CO2, N2O and CH4 using photometric sensor technology, and IR technology for measurement of carbon monoxide, carbon dioxide and methane at percent levels.

**Key Features**
- Low maintenance and cost of ownership.
- Easy integration with other systems.
- MCERTS / TIV approved measurements.

4900

**MULTIGAS CONTINUOUS EMISSIONS ANALYZER (CEMS)**

The SERVOPRO 4900 is specifically designed for the Continuous Emissions Monitoring, where legislation requires the measurement of several gas components in flue gas. The 4900 offers multigas capability for pollutants, greenhouse gases and reference O2, including O2, CO, CO2, NO, SO2, CH4, N2O.

**Key Features**
- Low maintenance and cost of ownership.
- Easy integration with other systems.
- MCERTS / TIV approved measurements.

4210

**VERSATILE TRACE GAS ANALYZER**

Offering a unique non-depleting plasma emission detector, the SERVOPRO Chroma (K4060) analyzer is one of the most versatile gas analyzers for trace gas measurement available. Most applications will be satisfied by a single 4U rack analyzer configuration, making the Chroma a compact, cost effective solution for Continuous process control or quality monitoring.

**Key Features**
- Patentled sample humidity control system for ultimate reading stability.
- New PED Sensor technology enables sub ppb measurement of H2, CH4, CO2 and NH3.
- No consumables or fuel gas required.
- Enables unique total Servomex solution for LHP gas analysis.

OxyDetect

**SAFE AREA OXYGEN MONITOR**

Safe area monitor which utilizes advanced non-depleting paramagnetic technology to accurately monitor O2 levels - without sensor deterioration that affects outdated electrochemical sensors used in competitor detectors.

**Key Features**
- Latest Hummingbird Patacube sensor technology for accuracy and reliability and never needs replacing.
- Alarm, fault and calibration history logs.
- Optional five-year warranty, including the sensor.

**TECHNOLOGY KEY**
- Zirconia
- Gas Filter
- Correlation
- Calorimetry
- Thermal Conductivity
- Paramagnetic
- Intra-Red
- Tunable Diode Laser
- Flame Ionization Detector
- Gas Chromatography
- Plasma
- Laser Moisture
- Coulometric
- Spectroscopic

**PRODUCT DETAILS**

**PRODUCT**

**3 KEY FEATURES**

**SERVOPRO SAFE AREA**

**PRODUCT**

**3 KEY FEATURES**
**MiniMP 5200**

**PORTABLE BENCHTOP ANALYZER FOR MEASURING O2 AND CO2**

The only truly portable battery powered gas analyzer with MCERTS certification, the MiniMP is a portable analyzer designed to offer single or dual measurement of O2 and CO2 by utilizing Servomex’s advanced paramagnetic and infra-red sensing technologies.

- EN15267-3 (MCERTS V3.3, Annex F) makes the MiniMP a source tester that require reference O2 analysis for CEMS verification
- Lithium ion battery system offers unique true portability
- Non-depleting sensor design ensures long service with minimal calibration

**Micro i.s. 5100**

**INTRINSICALLY SAFE PORTABLE ANALYZER**

Designed for the measurement of toxic and flammable gas samples, the intrinsically safe Micro i.s. is a unique analyzer certified to Zone 0 and Zone 1 and suitable for measuring percent levels of O2, CO and CO2.

- Intrinsically safe design to ATEX and IEC standards ensures safety operation in hazardous environments
- Ergonomic design ensures easy operation on the move
- Available in non-pumped or pumped version with optional sample conditioning kit

**MiniFoodPack 5200**

**PORTABLE ANALYZER OPTIMIZED FOR MODIFIED ATMOSPHERES PACKAGING**

A small sample volume portable benchtop analyzer designed specifically for the checking and quality control of gas mixtures in Modified Atmosphere Packaging (MAP) used in the food and pharmaceutical industries, the Mini FoodPack enables single or dual measurements for percent levels of O2, CO and CO2.

- Range of sampling accessories is available for taking measurement from rigid or flexible pack
- Rechargeable battery option enables complete portability for flexible operation
- Non-depleting sensor technology maximizes availability and reducing maintenance and operating costs

**MiniHD 5200**

**PORTABLE GAS ANALYZER FOR MEASUREMENT COMMON GAS MIXTURES**

Designed especially for use in field locations or light industrial applications, The SERVOFLEX MiniHD Portable gas analyzer is a rugged, heavy duty analyzer designed to accurately measure the levels of O2, CO and CO2 within common gas mixtures. The MiniHD utilizes Servomex’s non-depleting paramagnetic and infra-red sensors to give dependable and accurate results.

- Robust IP65 construction meets the demanding needs of field location analysis
- Long life Li-ion rechargeable batteries and range of sampling options ensure ease of use
- OASAT validated to meet USDA performance requirements for verifying metrics for MAP and nitrogen NF

**DF-100 Series**

**VERSATILE O2 ANALYZER RANGE WITH MULTIPLE OPTIONS**

An industrial gas analyzer range designed to deliver stable, accurate and reliable O2 measurement at percent and trace levels, the DF-100 series utilizes unique, non-depleting E-sensor technology to deliver accurate results with no sensor drifting, no false low readings or no frequent calibration requirements.

- Unique non-depleting technology for long term stability and ease of maintenance
- Unique measurement stability allowing SPAN calibration only once a year!
- Unique Stable E-sensor gas alarm option neutralizes trace contaminants

**DF-300 Series**

**HIGH SENSITIVITY DIGITAL TRACE O2 ANALYZER RANGE**

The DF-300 series is a full-featured, microprocessor-based O2 series offering customers superior value and performance. Based around the DF-310 base model, the DF-300 series utilizes Servomex’s unique, non-depleting coulometric E-sensor technology, the DF-340E enables O2 measurements at percent, trace and ultra-trace levels.

- Extensive background gas compatibility and flexible configuration options
- Variants include CSA hazardous-area approved DF-320E for indoor installation and DF-340E for outdoor installation
- Coulometric E-sensor delivers accurate results with no sensor drifting, false low readings or frequent calibration requirements

**DF-500 Series**

**LEADING ULTRA/TRACE PPT OXYGEN ANALYZER RANGE**

Verified by independent experts as measuring oxygen to the lowest PPT levels available, the Delta F Nanotrace analyzer range from Servomex delivers the premium performance in ultra-trace oxygen measurement. Consisting of the DF-500E Nanotrace and DF-500E Nanotrace II, the Nanotrace series delivers exceptional O2 measurements at trace and ultra-trace PPT levels.

- The de facto industry standard for the reliable measurement of oxygen in semiconductor manufacture
- Fast response and quick upset recovery ensures ultimate performance
- Options include flexible configurations and hand carry portable option

**DF-700 Series**

**TDLs TRACE MOISTURE ANALYZER RANGE**

A sophisticated process moisture analyzer range which offers users the comprehensive solution for trace and ultra-trace moisture measurement, the DF-700 series combines the latest Tunable Diode Laser Absorption Spectroscopy (TDL) technology, a robust measuring cell and a true baseline reference for highly accurate moisture measurement. Includes the new DF-745 SGMax specialty gas and moisture analyzer.

- Exceptional sub-parts per million level readings which exceed current LFP moisture measurement requirements
- Models DF-730 (moisture in HCl); DF-740 (moisture in ammonia); DF-745 (high sensitivity 2ppb LD); DF-745SGMax (specialty gas trace moisture analysis); DF-750 Nanotrace (base model); DF-760 dual oxygen and moisture measurement
- Second Harmonic detection technology for long life and robustness to particulates contamination
SERVOMEX SERVICE NETWORK PROVIDES A COMPREHENSIVE PACKAGE OF SERVICE AND SUPPORT TO ENSURE OPTIMUM PROCESS PERFORMANCE - WHEREVER YOU ARE.

**COMMISSIONING**
You need reassurance from the start that your analyzer will perform as expected. A Service Network Start-Up and Commissioning package provides you with one of our highly trained commissioning engineers to ensure you get the best from your investment.

**HEALTH CHECK**
A Servomex Health Check is an ideal solution for customers requiring a large equipment update or in the process of equipment maintenance visit; our Global Network of experienced Service engineers are available to provide prompt and efficient local-on-site support.

**ON-SITE SERVICE SUPPORT**
Whether you need urgent assistance with an emergency repair or preventive maintenance visit; our Global Network of experienced Service engineers are available to provide prompt and efficient local-on-site support.

**SERVICE CENTER SUPPORT**
Our network of Regional Service Centers are located close to every customer’s installed path, receiving analyzers for the fastest possible turnaround of repairs, preventative maintenance, calibration and analyzer upgrades.

**TRAINING**
A trained in-house maintenance team can better support the performance of Servomex products, ensuring long term reliability and maximizing ROI. Delivered through state of the art training centers in Europe, USA and Asia.

**SPARES**
Access to the right spare parts and consumables is critical in maintaining the operation of your plant. Servomex’s factory authorized service centers have an extensive range of products to rent through our Global Network. Long or short term agreements are available.

**SERVICE CONTRACTS**
Regular maintenance can add real value through improved plant reliability, uptime and optimization. We offer a wide range of maintenance services, from off the shelf packages to fully customized agreements, which include spare parts, discounts, preventative maintenance and emergency call outs.

**RENTAL EQUIPMENT**
Incorrect gas mixtures and concentrations can compromise your Servomex analyzer. Calibration kits ensure that you have the right gases to support your product.

**CALIBRATION KITS**

**HYDROCARBON PROCESSING**

**SERVOTOUGH Oxy 1900**
Award-winning paramagnetic oxygen analyzer, suitable for oxidation and inerting applications.

**SERVOTOUGH LaserCompact 2900**
High-sensitivity in-situ TDL analyzer capable of measuring low ppm levels of CO, CO2 and CH4 in process streams.

**SERVOTOUGH OxyExact 2200**
High accuracy paramagnetic oxygen analyzer for safety-critical oxidation.

**SERVOTOUGH SpectralExact 2500**
Robust process gas infrared analyzer for percent to ppm measurements.

**SERVOTOUGH DF Series**
Ideal for hazardous area measurements of trace O2 in polymer grade feedstocks.

**SERVOTOUGH MiniLaser Oxy**
All the benefits of Servomex’s TDL technology in a smaller and lighter unit.

Visit [www.servomex.com/service](http://www.servomex.com/service) or contact your local business center today.
**FOOD & BEVERAGE**

**blending applications optimized for specialty gas**

**Low LDL trace moisture analyzer DF-745 SGMax DF SERIES**

**P20 ESES quality control Trace measurement ensures SERVOPRO SERVOFLEX during transfilling operations Portable analyzer validates purity**

**MiniMP 5200 SERVOPRO**

**Trace measurements with oxygen purity and SERVOPRO DF SERIES MultiExact 5400**

**Ultra-trace ppt oxygen analyzer DF-550E/DF-560E DF SERIES**

**NanoChrome flexible multigas analyzer meets regional Pharmacopoeia**

**Trace moisture analyzer DF-760E DF SERIES**

**for specialty gas blends production**

**LaserCompact 2900 for N2 and Ar measurements Flexible sub-ppb LDL gas analyzer Chroma SERVOTOUGH LaserSP 2900 Gaseous monitoring**

**trace measurements with up to four simultaneous Flexible multigas analyzer DF-4100 SERVOTOUGH 4100Analyzer a**

**Source Testers**

**trace oxygen analyzer Chroma for specialty gas mixtures next generation’ digital multigas analyzer MultiExact 5400 DF SERIES**

**nitrogen in argon and/or helium for continuous monitoring of nitrogen in pure gases (e.g. CO in H2, NH3 in CO2)**

**Highly sensitive and versatile DF-310E DF SERIES**

**Single or dual component emissions analyzer for Specialty gases monitoring of O2 level Continuous MAP headspace**

**DF-745 SGMax Low LDL trace moisture analyzer optimized for specialty gas blending applications DF SERIES**

**Chroma Trace measurement ensures quality control**

**FluegasExact 2700 Certified to measure trace oxygen in H2, N2, and/or Ar in a hazardous area DF SERIES**

**LaserCompact 2900 for O2 control in H2 production by electrolysis Flexible multigas analyzer DF-4100 SERVOTOUGH**

**highly sensitive and versatile trace oxygen analyzer MultiExact 2900 SERVOTOUGH LaserExact 2900 for measurement of H2 in a hazardous area TRACE level measurements in pure gases (i.e. CO in H2, NH3 in CO2)**

**FluegasExact 2700 DF SERIES**

**for control combustion in SMB processes MultiExact 5400 DF SERIES**

**for Specialty gases monitoring of O2 level)**

**DF-310E Chroma Trace measurement ensures quality control**

**DF-320E Chroma Trace measurement ensures quality control**